

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0032] with the amended version below. Support for the amendment to paragraph [0032] can be found, for example, at Figure 2 of the application as-filed. Accordingly, no new matter is believed to be entered by such amendment.

[0032] To add the dropped channels back into the multiplexed signal for use by other components on the optical network, fused-fiber interleavers, as described above, may be used. For example in Figure 2, three stages of fused-fiber interleavers are shown. The first stage 214 includes the interleavers 216 and 218. The interleavers 216 and 218 each interleave two channels that are 80nm apart. The interleaver 216 combines the channels λ_1 and λ_5 while the interleaver 218 combines the channels λ_3 and λ_7 . The second stage 220 ~~[[in]]~~ is configured to interleave channels spaced 40 nm apart and includes interleavers 221 and 224. Thus the interleaver 221 combines the outputs of the first stage 214 into a single signal. As shown in Figure 2, the interleaver 224 is connected in series with the interleaver 221 so as to receive the output of interleaver 221, namely, channels λ_1 , λ_3 , λ_5 , and λ_7 . The interleaver 224 then interleaves the channels received from interleaver 221 with the channels λ_2 , λ_4 , λ_6 and λ_8 received from three port device 212, so that the output of the second stage 220 is channels $\lambda_1 - \lambda_8$. The third stage 222 is configured to interleave channels spaced 20 nm apart. By cascading these interleavers, the CWDM signal that includes the channels λ_1 , λ_2 , λ_3 , λ_4 , λ_5 , λ_6 , λ_7 and λ_8 can be reconstituted and sent further on in the network as shown in Figure 2. Much of the time, thin film interleavers are used because of the Gaussian response of fused-fiber interleavers.

Please replace paragraph [0042] with the amended version below. Support for the amendment to paragraph [0042] can be found, for example, at Figure 2 of the application as-filed. Accordingly, no new matter is believed to be entered by such amendment.

[0042] A typical flattop response of the thin film interleaver is shown in Figure 5. As illustrated in Figure 5, the thin film interleaver response 501 is more constant or flat in the region 504 around the defined carrier frequency 503. As the wavelength varies from the defined carrier wavelength, there is less loss associated with the flat-top response 501 than the Gaussian response 502.